ECR#: P14
Tracker # : 23
Status: Ratified
Title: Define 1394-1995 NLX Riser Pins
Release Date: September 17, 1997
Impact, Low: Motherboard design change
Spec Version: NLX Motherboard Specification 1.2

Summary:

The NLX specification has reserved pins for a future implementation. Four (4) of those pins need to be defined to implement 1394-1995 IEEE standards in NLX. To implement this change, the following four pins have been assigned for the differential pairs: A168, B167, B168, B169. Refer to the *IEEE Standard for a High Performance Serial Bus* (1394-1995) for more information.

Changes Current Specification As Shown:

Modify Tables 4.10 and 4.11 to incorporate IEEE 1394-1995 signals. Figure 4.1 shows the differential pair pins and which ground pin is used. The figure is new, not a revision to an existing figure in the specification.

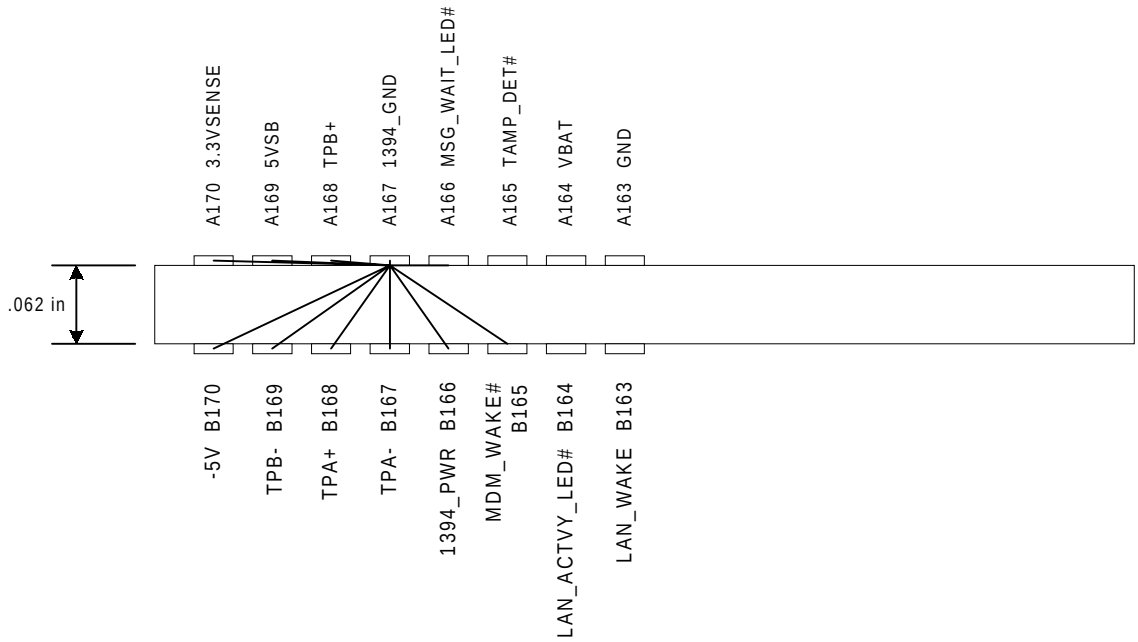

Figure 4.1: Riser Differential Pair Pins

In Table 4.10, page 44, correct the pin definitions as shown below. Only the underlined portions below are changed.

TABLE 4.10: IDE, Floppy, and Front Panel Section, continued

Pin	Signal Name	Type	I/O	Term-ination	Pin	Signal Name	Type	I/O	Term-ination
A167	1394_GND	PWR	O	N/A	B167	TPA-	1394	I/O	N/A
A168	TPB+	1394	I/O	N/A	B168	TPA+	1394	I/O	N/A
A169	5VSB	PWR	I	N/A	B169	TPB-	1394	I/O	N/A

In Table 4.11, page 45, correct the pin descriptions as shown below. In the table row that describes Reserved signals, only three pins should now be listed.

Table 4.11: IDE, Floppy, and Front Panel Signal Descriptions

Signal	Pin	I/O	Description	Signal Type
Reserved				
RESERVED	A116	N/A	These pins should not be used for any purpose. They are reserved to allow compatibility with future implementation of the interface; compatibility problems can result if these signals are misused.	N/A
	A135	N/A		N/A
	A140	N/A		N/A

In Table 4.11 continued on page 47, correct the pin descriptions as shown below. In the table row that describes IEEE 1394 signals, a total of six pins should now be listed. Only the underlined portions below are changed.

Table 4.11: IDE, Floppy, and Front Panel Signal Descriptions, continued

Signal	Pin	I/O	Description	Signal Type
IEEE 1394				
1394_PWR	B166	I	Up to 1.5 Amperes of isolated power can be supplied from the power supply for IEEE-1394 powered port(s). The 1.5 ampere limitation is the maximum capacity of the riser connector pin/gold finger connection.	Per IEEE standard 1394-1995
1394_GND	A167	O	Isolated 1394-power return to power supply.	0 volts relative to 1394_PWR
TPA+	B168	I/O	IEEE 1394-1995 port. This signal pair comprises the differential data signal for a 1394 port. Refer to the 1394-1995 specifications for more information. These pins are defined with respect to a 1394 PHY located on the motherboard. Risers implementing 1394 should have this taken into consideration in their design.	Per IEEE standard 1394-1995
TPA-	B167	I/O		
TPB+	A168	I/O	IEEE 1394-1995 port. This signal pair comprises the differential data signal for a 1394 port. Refer to the 1394-1995 specification for more information. These pins are defined with respect to a 1394 PHY located on the motherboard. Risers implementing 1394 should have this taken into consideration in their design.	Per IEEE standard 1394-1995
TPB-	B169	I/O		

Note: Speed requirements/capabilities for the 1394-1995 pin assignments depend on your specific implementation.